

CONTINUING RESEARCH AT SOLAR STEAM, INC.

DOUG WOOD

SOLAR STEAM, INC.
TACOMA, WA 98402

Solar dish technology could become cost competitive with conventional energy sources. This potential for a multi-billion dollar industry has attracted an international group of innovative dish developers resulting in a number of different dish designs for various specified applications and temperature goals.

Solar Steam, Inc. is wholly committed to the research and development of a mid-temperature dish system which can compete effectively with conventional energy technologies.

The Solar Steam 30 foot diameter glass dish was prototyped in 1979 and concluded our dish geometry development.

The dish was tested by SERI to have a gross concentration ratio of about 123 to 1 (adequate for a 750 Farenheit thermal steam system). However, the prototype could not be mass produced as is and be cost effective without tax subsidies.

Since 1979, the Solar Steam R&D effort has focused on design analysis and on the research being conducted by the national laboratories. Federally funded research and development programs supplied information and test results on various systems and helped our private research efforts. The work done at JPL in materials, concentrators, applications, and systems has been invaluable in shaping our first dish. Much of what was learned at JPL will be used in our second prototype.

A second glass prototype is currently being detailed which is 40 feet in diameter and uses a single post wind abatement support carriage. The entire system (less counterweights) may weigh less than 6 pounds per square foot. This dish will be prototyped and tested as soon as possible. If the dish can be commercialized cost competitive with conventional energy sources then the dish design will be marketed. Much research remains to be done.

Our best wishes to others developing dish concentrators and dish applications. And a special thanks to JPL for inviting our participation.